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# Uranus

**Seventh** planet from the Sun

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## Orbit
19.2 astronomical units (AU) from the Sun
Earth is 1 AU from the Sun

## Length of year
83.75 Earth years

## Length of Day
17.2 Earth hours

## Tilt of Rotation Axis
97.8 degrees versus 23.5 degrees for Earth

## Size
***Diameter:*** 4 times Earth's diameter

## Surface Gravity
0.9 of Earth's gravity
If you weigh 80 pounds on Earth, you would weigh about 72 pounds on Uranus!

## Mass
14.5 times greater than Earth's mass

## Atmosphere
***Primary components:*** 83% hydrogen, 15% helium, 2% methane

## Surface
The gas planets do not have solid surfaces; their gaseous material simply gets denser with depth. What we see when looking at these planets are the tops of clouds high in their atmospheres.

Uranus is composed primarily of rock and various ices, with only about 15% hydrogen and a little helium (in contrast to Jupiter and Saturn which are mostly hydrogen). Uranus (and Neptune) is in many ways similar to the cores of Jupiter and Saturn minus the massive liquid metallic hydrogen envelope. It appears that Uranus does not have a rocky core like Jupiter and Saturn but rather that its material is more or less uniformly distributed.

## Moons
Uranus has 22 named moons and 5 unnamed moons (as of July 2004)

## Past Missions
Voyager 2, on January 24, 1986

**Before Uranus was recognized as a planet, several astronomers had observed Uranus but recorded it as a fixed star. William Herschel discovered Uranus and tried unsuccessfully to name his discovery after Britain's King George III; the planet was named in 1781 for the mythological father of Saturn. Satellites in the Uranian system are named for characters in Shakespeare's plays and from Pope's *Rape of the Lock*.**

**Uranus rotates on its side – its pole is tilted 90 degrees to the plane of the solar system. Its motion against the field of background stars shows it to be a planet. The word "planet" is derived from a Greek word for "wanderer."**